



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,451	06/27/2001	Brian Arnold	USM1901	4244

7590 10/23/2002

Laurie Butler Lawrence  
Fish & Richardson PC  
225 Franklin Street  
Boston, MA 02110

EXAMINER

NORDMEYER, PATRICIA L

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 10/23/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/869,451

Applicant(s)

ARNOLD, BRIAN

Examiner

Patricia L. Nordmeyer

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 34-36 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. Applicant's election without traverse of claims 18 – 33 in Paper No. 8 is acknowledged.

#### ***Claim Objections***

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 22 – 40 been renumbered 18 – 36.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 18 – 21 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase “can be” in claim 18 is unclear, which renders the claim vague and indefinite. The phrase is not a positive limitation on the claim. The stiffener only has to have the ability to be manipulated. It does not actually have to be manipulated.

Art Unit: 1772

The phrase "PAS or Pas" in claims 19 – 21 is unclear, which render the claims vague and indefinite. It is unclear from the claim language what is abbreviated by "Pas". For the purpose of examination, it is assumed that it should be "Pa•s", which is a Pascal times a second.

The phrase "85% and 35% in claim 24 is unclear, which renders the claim vague and indefinite. Ranges in the claim language must increase from the smaller number to the larger number.

Correction/clarification is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 18 – 23, 29, 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trask (USPN 3,778,251) in view of Burgess et al. (USPN 5,164,240).

Trask discloses a shoe stiffener material (Column 2, lines 10 – 11) with two layers of polycaprolactone film material for adhesion (Column 5, lines 5 – 8 and Figure 2, #11 and 13) enclosing a pliable polymeric composition impregnated in a fabric layer (Figure 2, #12 and Column 2, lines 11 – 13). The polycaprolactone is heated between 140 and 360 °F (60 to 182 °C) and has a viscosity of at least 7,000 centipoises (Column 11, lines 28 – 29) or 66,0000

Art Unit: 1772

centipoises (Column 5, line 55) dependent on the molecular weight of the polycaprolactone. The shoe stiffener has a thickness between 0.022 and 0.1 inches, 0.56 to 2.54 mm, (Column 2, lines 26 – 31). However, Trask fails to disclose apertures in one of layers with sizes between 0.15 mm<sup>2</sup> to 5 mm<sup>2</sup> and one of the layers being made from non-woven fabric with apertures.

Burgess et al. teaches an apertured non-woven fabric layer with openings of 0.1 to 0.3 mm<sup>2</sup> (Column 4, lines 3 – 12) and a resin layer (Column 4, lines 35 – 36) in a shoe stiffener for the purpose of allowing the thermoplastic resin to flow through the fabric and act as a stiffening agent in the composite (Column 2, lines 39 – 44).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the apertures with areas of 0.1 to 0.3 mm<sup>2</sup> in a non-woven fabric in Trask in order to allow the thermoplastic resin to flow through the fabric and act as a stiffening agent in the composite.

Regarding the stiffener being manipulated and positioned in a shoe upper and subjected to pressure to cause enough of said polymeric material to flow through the openings in the sheet material and adhere to the adjacent shoe material to bond the stiffener to the shoe in claim 18, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 946, 966 (Fed. Cir. 1985) and MPEP

Art Unit: 1772

§2113. In this case, the limitation of manipulating, applying pressure and adhering the stiffener is a method of production and therefore does not determine the patentability of the product itself. Process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. Further, when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the Applicant to present evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F.2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F.2d 742, 180 USPQ 324 (CCPA 1974).

Trask discloses the claimed invention except for the polymeric material comprising poly(tetramethyleneadipate). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided poly(tetramethyleneadipate) as a stiffening polymer, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

7. Claims 24, 27, 28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trask (USPN 3,778,251) in view of Burgess et al. (USPN 5,164,240) as applied to claims 18 – 23, 29, 30 and 33 above, and further in view of Agger et al. (USPN 5,068,143).

Trask, as modified with Burgess et al., discloses the claimed invention except for the

Art Unit: 1772

stiffener composition comprising between 15 and 70% of filler, the filler being mica or talc and one of the layers being a woven fabric.

Agger et al. teaches a filler selected from mica, talc, fuel ash, glass fiber and calcium carbonate (Column 4, lines 60 – 62) with an amount up to 50% (Column 4, lines 58 – 59) in a formable sheet material with a substrate made from woven fabric (Column 2, lines 31 – 33) for the purpose of making shoes that have preferred properties such as stiffness and predetermined set up times (Column 2, lines 13 – 15).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided up to 50% mica or talc filler in a sheet material in the modified Trask in order to make shoes that have preferred properties such as stiffness and predetermined set up times as taught by Agger et al.

8. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trask (USPN 3,778,251) in view of Burgess et al. (USPN 5,164,240) as applied to claims 18 – 23, 29, 30 and 33 above, and further in view of Jonnes et al. (USPN 3,660,849).

Trask, as modified with Burgess et al., discloses the claimed invention except for the filler material having a size between 50 and 400 microns.

Art Unit: 1772

Jonnes et al. teaches a filler where the particles have diameters ranging from 20 to 400 microns (Column 10, lines 39 – 41) in a matrix for the purpose of giving the material some flexibility to bend and also giving it insulating abilities (Column 7, lines 18 – 25).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided filler material with diameters between 20 to 400 microns in the modified Trask in order to give giving the material some flexibility to bend and also give it insulating abilities.

9. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Trask (USPN 3,778,251) in view of Burgess et al. (USPN 5,164,240) as applied to claims 18 – 23, 29, 30 and 33 above, and further in view of Mobius (USPN 4,388,768).

Trask, as modified with Burgess et al., discloses the claimed invention except at least one of the layers of sheet material being a knitted fabric.

Mobius teaches a knitted substrate (Column 2, line 67) in a shoe stiffener (Column 7, line 56) impregnated with a resin and filler (Column 7, lines 59 – 68) for the purpose of forming a shoe stiffener that is impregnated with a resin to make it resistant to slipping and sliding (Column 1, lines 49 – 51).



Art Unit: 1772

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the knitted substrate in the modified Trask in order to form a shoe stiffener that is impregnated with a resin to make it resistant to slipping and sliding as taught by Mobius.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Nordmeyer whose telephone number is (703) 306-5480. The examiner can normally be reached on Mon.-Thurs. from 7:00-4:30 & alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Patricia L. Nordmeyer  
Examiner  
Art Unit 1772

*pln*  
pln

October 18, 2002

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
*1772*

*10/21/02*